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Hanch, Charles Connard

Text books and overalls

New York

[1922]

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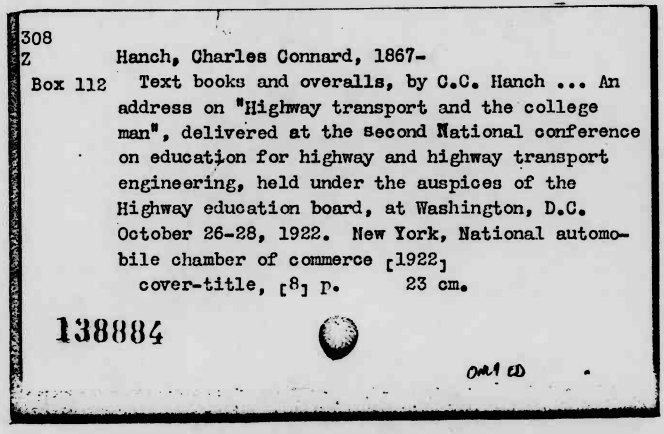

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Text Books and Overalls

By

C. C. HANCH

Vice-President Lexington Motor Car Company and Vice-President
National Automobile Chamber of Commerce

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Box 112

An address on "Highway Transport and the College Man" delivered at the second national conference on Education for Highway and Highway Transport Engineering, held under the auspices of the Highway Education Board, at Washington, D. C. October 26-28, 1922

NATIONAL AUTOMOBILE CHAMBER OF COMMERCE
366 Madison Avenue, New York City

Text Books and Overalls

A Discussion of Opportunities for Trained Men in the Automobile Industry

by

C. C. HANCH

LEADING POINTS IN THE ADDRESS

Automobile industry gives employment to 2,430,000 persons.

Beginners in the field must be willing to wear overalls.

Advance of motor transportation is developing many new opportunities.

Limited field for research engineers.

Engineering training valuable for production men and purchasing agents.

Call for traffic men in motor transport.

Men with gift for selling will find wide opportunities.

Skilled persons needed for service station work.

YOUR committee has invited me here to talk about jobs. The university man is interested in all these new questions and vistas which are opening up, but first of all he must know where his bread and butter are coming from. The university which establishes special courses in highway transport quite rightly asks the question, "What opportunities are there for our graduates in the long run?" and more definitely, "What jobs are they likely to find in the field of motor transport immmediately upon graduation?"

I shall try to answer both of these questions briefly and directly, but to do this completely, I must first indicate for a moment something of the extent and history of the automobile industry.

We are assembled here to discuss the extent of highway transport and its place in the industrial fabric, and to analyze the field of opportunity which it offers to the college student. It is perhaps relevant to say that the automotive industry within the space of its short manufacturing career has advanced until it is today third among the industries of the United States in value of annual output. affording annual employment to some 2,430,000 employes who earn their wage either in the output of the car itself or in producing the materials which go into the vehicle. Of the number, about 600,000 are in the industry itself.

Extent of Motor Transport

Today there are, in round numbers, 10,500,000 motor vehicles in the United States, or one to every ten persons in the country. The total world registration is but 12,500,000, so that it appears at once that 83 per cent. of the cars now in use are in this country. Of this total approximately 87 per cent. are manufactured in the United States.

Field Constantly Growing

No man here today can forecast fully the directions which the use of the motor vehicle will take. Each day finds some new place for it. Each day the social and economic influence of the car extends into some new field and throughout the world the instinctive human desire for individual transportation asserts itself in the demand which we see reflected in a constantly growing use.

This development has taken place within a decade and like every new development in our civilization it has brought in its wake new questions, or rather old questions demanding new answers. The swaddling clothes of the infant will not fit the growing boy. The advance in ten years from 600,000 to 10,500,000 cars brings with it new requirements in methods, whether they be legislative, industrial or financial in nature. New practices, new customs are before us and only trained men can give us the key to their solution.

Before we can give a categorical answer to the question of what the field of opportunity is in this industry, however, certain conditions must be laid down which will be recognized by every educator as limitations older than education itself, as old indeed as human nature.

College education in itself is not the be-all and end-all. Behind college education there must be those enduring traits of

human character which are always essential to success. Preseverance, intelligence, honesty, willingness to learn and to work are fundamental. The textbook must be supplemented by the overalls.

University training supplies the spiked shoes, but every man must start at scratch and, in the long run, the best will win.

Industry Entering New Period

Further, it must be recognized that the industry is but now entering upon a new phase in its development. Initially the manufacturer was concerned with evolving a practical motor vehicle. Next, he has found it necessary to develop manufacturing facilities adequate to meet the enormous immediate public demand.

This accomplished, he arrives at the point today where the motor vehicle has become a major unit in transportation, requiring minds of varied training in such fields as civil, chemical, mechanical, metallurgical and electrical engineering, economics, business administration and finance, research in physical and commercial lines and many other branches including public service.

The industry is in the pioneer stage of this step in its progress. It will proceed rapidly or slowly according to the recognition which educators give to the magnitude of the educational need involved and according to the facility with which university and industry learn to work together in this common cause.

The question again becomes one of personality. The university man must be willing to begin at the bottom and must display the ability to grasp the opportunity afforded.

The matter of securing employment is an operating detail which will be worked out as the quality of the college graduate demonstrates his fitness for the job.

Analyzing The Job

What is the job?

If the man's training has been in the field of highway construction, the question of where such jobs are to be found is one which the highway leader can answer, a matter not directly related to the automobile industry.

On the other hand, if a man has taken courses preparing him either for work within the factory or in the uses of motor transport, he should be able to find his place somewhere in the automobile industry.

When he first comes out of college he may get a job with a research department and find that he is a salesman. It is altogether probable that he will not be put on the exact type of work that he ultimately wishes to perform when he first goes into the factory. He may be taught something about the field and then sent out on the road for a month or two. No matter what section of the work particularly appeals to him, he is always sure to benefit from some sales experience. He must learn to bear in mind that motor transport is a means, not an end.

Getting Practical Experience

The answer to the value of every type of design is, "Does it please the user?" "Is it of greater value to the man who is operating the car or the truck?" Actual experience in selling is one of the greatest possible schools teaching practical conditions which the designer must face. Many a beautiful design has been worked out in a laboratory which would not stand the test of the open road.

Field of Opportunity

The field of opportunity, however, may be outlined as follows:

Broadly speaking, it can be divided into two classes, those within the manufacturing plants themselves and those in the extension of motor transport.

The first class offers a field of opportunity in five distinct divisions. Research and design is the first of these. It affords a limited field in every factory where the services of a chief engineer and assistants will be required at salaries on a parity with or higher than those of similar employment in other large manufacturing industries.

Among the problems with which men of this type will have to deal may be enumerated the following:

Development of strong light metals; also steels and alloys with high tensile strength.

Designing of carburetors which will reduce fuel consumption, and also successfully utilize low grade fuels.

Improvement of braking and spring devices.

Building of more easily manipulated transmission.

Advance in headlighting system which will minimize glare.

Simplification of construction in general.

Development of equivalents for existing materials.

Fabricated production is the second phase. Here, again, the field is limited but obtains in every factory. The chief problems involve questions of repetitive and mass production. The men in charge must be equipped to bring about modifications in factory practice to meet with changing requirements of design and to effect economies in production. The educational requirement is a study in engineering, or shop practice and administration.

Purchasing Requires Training

Purchasing is another field which is common to all factories and requires the services of at least one highly paid man and assistants whose salaries will depend upon the size of the factory. These men should be thoroughly grounded in business practice, and, preferably, should have an engineering knowledge of the materials which they buy. They must also have an understanding of economic trends.

Sales and extension work is one of the largest fields of employment in the salaried field of the industry. Compensation there, as in all sales fields, depends directly upon the ability of the man. In general ,the applicant should know the principles of psychology, business practice and economics. If he is in the motor truck field, especially, he will have to have a thorough knowledge of economic trends.

The fifth and last field is a specialized one—the highway transport engineer. This man should be both an engineer and an economist. He is, in fact, a glorified salesman, who must be able to map out selling campaigns on a mass scale dependent upon the growing field of highway transport, as for example, in the use of the motor bus in connection with consolidated schools, the use of passenger fleets for traveling salesmen, etc. This field is limited, but again the compensation is in proportion.

Need for Transport Engineers

Work Outside Factories

The second large class of employment has to do with the operation of the vehicle in the field as a phase of highway transport and with the extension of sales promotional effort by the dealer.

Highway transport, as such, offers employment for a large and growing group of fleet owners, superintendents, dispatches and operators. The colleges are generally concerned only with the first two classes. Education for these fields should include a general knowledge of economics, business practice and sufficient engineering to enable the man to build and conduct service stations, etc. This field offers attractive remuneration for the owner and a few very high salaries for the superintendents, depending upon the size of the fleet.

The dealer is the pivotal point in the future of the industry. His is the immediate contact with the public. He should have a general training in business practice, economics and psychology. He must be a leader. The field is very large and the reward in proportion. If he is selling motor trucks, some grounding in engineering will be particularly valuable.

Beyond these fields and as a direct offspring of the motor industry there are the allied fields of the city planning commission, the traffic and highway engineer and the transportation expert of the state highway department. These fields come under the head largely of public service. They will require many men of vision, with a thorough grounding in economics, sociology and engineering.

Opportunities In Allied Fields

Finally, it may be said that the field in prospect is not limited to the confines of the United States. While the positions in manufacturing will continue to rest largely with those employed in this country for many years to come, and perhaps as long as there is a motor industry, foreign countries will turn more and more to us for leaders to carry on the work of extending motor transport throughout the world. As world conditions become more settled, countries now practically barren of modern highway transport facilities will need men trained to these tasks.

How shall one of these university graduates set about to get a job in the automobile industry? There is no sure road any more than in other business, but by the time next June's graduates are ready, the industry expects to have worked out a plan which will keep it in touch with the available men. Whether this will take the form of a University Contact Bureau in the National Automobile Chamber of Commerce or whether some

Plans for Closer Contact

other method will be adopted has not been finally determined, but a definite effort is being made to outline a program which will keep the factories in touch with the more promising men who are being graduated.

In conclusion let it again be said that the opportunity necessarily depends upon the man's ability and enterprise.

All we can do is to give him an entry in the race.

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